

Title (en)
AUDIO PRECOMPENSATION CONTROLLER DESIGN USING A VARIABLE SET OF SUPPORT LOUDSPEAKERS

Title (de)
ENTWURF FÜR EINE AUDIOVORKOMPENSIERUNGSSTEUERUNG MIT EINEM VARIABLEN SATZ UNTERSTÜTZENDER LAUTSPRECHER

Title (fr)
CONCEPTION DE CONTRÔLEUR DE PRÉ-COMPENSATION AUDIO UTILISANT UN ENSEMBLE VARIABLE DE HAUT-PARLEURS D'APPUI

Publication
EP 2692155 A1 20140205 (EN)

Application
EP 12872014 A 20120322

Priority
SE 2012050320 W 20120322

Abstract (en)
[origin: WO2013141768A1] A basic idea is to determine an audio precompensation controller for an associated sound generating system comprising a total of $N \geq 2$ loudspeakers, each having a loudspeaker input. The audio precompensation controller has a number $L \geq 1$ inputs for L input signals) and N outputs for N controller output signals, one to each loudspeaker. It is relevant to estimate, for each one of at least a subset of the N loudspeaker inputs, an impulse response at each measurement position. It is also important to specify, for each one of the L input signal(s), a selected one of the N loudspeakers as a primary loudspeaker and a selected subset S including at least one of the N loudspeakers as support loudspeaker(s). A key point is to specify, for each primary loudspeaker, a target impulse response at each measurement position with the target impulse response having an acoustic propagation delay, where the acoustic propagation delay is determined based on the distance from the primary loudspeaker to the respective measurement position. The idea is then to determine, for each one of the L input signal(s), based on the selected primary loudspeaker and the selected support loudspeaker(s), filter parameters of the audio precompensation controller so that a criterion function is optimized under the constraint of stability of the dynamics of the audio precompensation controller.

IPC 8 full level
H04S 7/00 (2006.01); **H03G 5/00** (2006.01); **H04R 3/04** (2006.01)

CPC (source: EP US)
H04R 3/04 (2013.01 - US); **H04S 7/301** (2013.01 - EP US); **H04S 5/00** (2013.01 - EP US); **H04S 7/305** (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2013141768 A1 20130926; BR 112014018342 A2 20170620; BR 112014018342 A8 20170711; BR 112014018342 B1 20210316; CN 104186001 A 20141203; CN 104186001 B 20180327; EP 2692155 A1 20140205; EP 2692155 A4 20150909; EP 2692155 B1 20180516; ES 2683821 T3 20180928; JP 2015512579 A 20150427; JP 5957137 B2 20160727; KR 101895656 B1 20181018; KR 20140138972 A 20141204; MX 2014008123 A 20141017; RU 2014132848 A 20160227; RU 2595896 C2 20160827; SG 11201403493X A 20140730; US 2014153744 A1 20140605; US 9781510 B2 20171003; ZA 201404833 B 20150826

DOCDB simple family (application)
SE 2012050320 W 20120322; BR 112014018342 A 20120322; CN 201280068508 A 20120322; EP 12872014 A 20120322; ES 12872014 T 20120322; JP 2015501617 A 20120322; KR 20147029030 A 20120322; MX 2014008123 A 20120322; RU 2014132848 A 20120322; SG 11201403493X A 20120322; US 201214009215 A 20120322; ZA 201404833 A 20140630